

REBUTTAL TESTIMONY

OF

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TELECOMMUNICATIONS DIVISION

ILLINOIS COMMERCE COMMISSION

ILLINOIS BELL TELEPHONE COMPANY

FILING TO INCREASE UNBUNDLED LOOP AND NONRECURRING RATES

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Table of Contents

I. Witness Identification.....	1
II. Purpose of Testimony.....	1
III. Response to Dr. Aron.....	2
IV. Response to Dr. Vanston.....	17
V. UNE Rates.....	30
A. Sales Tax Rate.....	35
B. Capital and Expense Factors.....	35
C. Crossover Length.....	37
D. DLC-RT Common Investment.....	37
E. DLC-RT EFI Factors.....	38
F. Copper Installation Factors.....	38
G. Fiber Cable Installation Factors and Costs.....	39
H. Fill Factors.....	39
(i) FDI Fills.....	39
(ii) Other Fills.....	40
I. Residential/Business Percentages.....	41
J. NID Premises Termination.....	42
K. Distribution Terminal.....	42

L. Labor Rate.....	43
M. DSI Circuit Equipment.....	44
N. DS3 Circuit Equipment.....	44
O. TELRIC Rates.....	44
P. Recurring UNE Loop Rates.....	45

1 **I. Witness Identification**

2
3
4 **Q. What is your name, title and business address?**
5

6 A. My name is Genio Staranczak. I work for the Illinois Commerce Commission as
7 principal economist in the Telecommunications Division. My business address is
8 527 East Capitol Avenue, Springfield, Illinois 62701.
9

10 **Q. Are you the same Genio Staranczak that filed testimony in this docket on**
11 **behalf of Staff on May 6, 2003 and January 20, 2004?**
12

13 A. Yes I am.
14

15 **II. Purpose of Testimony**
16

17 **Q. What is the purpose of your rebuttal testimony?**
18

19 A. The purpose of my rebuttal testimony is to respond to SBC Illinois (SBCI) witness
20 Dr. Debra Aron, SBCI Exhibit 2.1, SBCI depreciation witness Dr. Lawrence
21 Vanston, SBCI Exhibit 13.1, and to file new UNE rates on behalf of Staff derived
22 from updated inputs provided by Staff witnesses using SBCI's revised cost
23 models.
24
25

26 **III. Response to Dr. Aron**

27
28 **Q. Dr. Aron alleges that state regulators respond to the short run interests of**
29 **consumer groups and a regulatory desire to provide evidence of**
30 **competition, even if synthetic, and consequently price UNEs below costs¹.**

31 **Do you agree with Dr. Aron?**

32
33 **A.** No, I emphatically do not. Contrary to Dr. Aron's assertions, and speaking from
34 personal experience, state regulators try to enforce the law impartially while fairly
35 balancing the interests of all parties - ILECs, CLECs and ratepayers - when they
36 set UNE rates. Commissions typically invite comment by parties, weigh the
37 evidence presented by these parties carefully in the light of existing law and
38 applicable regulations and then make decisions that are lawful and in the public
39 interest, which includes the interests of the regulated entity and its shareholders.
40 To suggest that regulators are puppets of consumer groups and are not
41 concerned with the long run is an insult to hard-working, fair-minded regulators in
42 Illinois and indeed, everywhere.

43
44 **Q. SBCI witness Dr. Aron claims that justifying prices in one state by**
45 **comparing them to prices in other states is an ill-founded exercise². Do**
46 **you agree?**

47

¹ SBCI Ex. 2.1 at 74.

48 A. I agree that trying to justify prices in one state by comparing them to prices in
49 another state is not a particularly useful exercise. Prices should not be
50 compared because, among other reasons, the cost of serving customers in one
51 state can – and indeed might reasonably be expected to – vary considerably
52 from the cost of serving customers in other states. This is, of course, why Dr.
53 Aron’s attempt to discredit UNE rates in Illinois by comparing them to UNE rates
54 in other states is so ill founded. In her original testimony Dr. Aron compares
55 UNE-L rates in Illinois with those in other states and observes that UNE-L rates
56 in Illinois are the fourth lowest in the nation³. By drawing this comparison Dr.
57 Aron is arguing that because UNE-L rates in Illinois are the fourth lowest in the
58 nation, they are somehow under-priced and that regulators in Illinois should raise
59 UNE-L rates in Illinois to more reasonable (i.e., more average) levels. Because,
60 as Dr. Aron recognizes, it is inappropriate to justify or discredit prices in one state
61 by comparing them with prices in another state, the Commission should
62 disregard Dr. Aron’s UNE-L comparison and set UNE-L rates precisely as it has
63 done in the past: by determining SBCI’s forward-looking costs for providing
64 UNE-L in a manner consistent with forward looking costing principles.

65
66 In her rebuttal testimony, Dr. Aron compares UNE-L rates in Illinois with UNE-L
67 rates in Florida, Massachusetts and Rhode Island⁴. Again Dr. Aron draws this
68 comparison in an attempt to implicitly call into question UNE-L rates in Illinois by
69 pointing out that rates in some states are higher than Illinois. I would again point

² Id. at 79.

³ SBCI Ex. 2.0 at 6.

⁴ SBCI Ex. 2.1 at 76.

70 out that trying to discredit UNE-L prices in one state by comparing these prices to
71 UNE-L prices in another state is an ill founded exercise.

72
73 Finally, in her rebuttal testimony Dr. Aron states that “low prices established by
74 one state commission are touted by CLECS to other state commissions as a
75 benchmark”⁵. What Dr. Aron fails to add is that high prices established by one
76 state commission are similarly touted by **ILECs** to other state commissions as a
77 benchmark; Dr Aron engages in precisely this exercise in her testimony⁶. For
78 this reason I urge the Commission to disregard the ill founded UNE-L
79 comparisons made by Dr. Aron in her rebuttal testimony and again adopt UNE-L
80 rates as proposed by Staff.

81
82 **Q. Dr. Aron contends that the productivity factor used in SBCI’s price cap**
83 **formula does not support your claim that UNE prices proposed by Staff are**
84 **sound⁷. Do you agree?**

85
86 **A.** No. Dr. Aron maintains that under SBCI’s price cap productivity factor (4.3%) that
87 it would take SBC Illinois over 20 years to decrease its 2002 actual costs to the
88 purported TELRIC costs on which its current UNE rates are based⁸. She
89 concludes by stating that current UNE prices therefore are simply inconsistent

⁵ Id at 75.

⁶ Id at 76.

⁷ Id at 78.

⁸ Id.

90 with the ICC's own productivity expectations as memorialized in the productivity
91 factor⁹.

92
93 Before responding to Dr. Aron's calculations, I would first like to put the
94 productivity factor issue in perspective. In her direct testimony Dr. Aron
95 contended that forward-looking costs do not necessarily have to be less than
96 historical costs¹⁰. In my direct testimony, I demonstrated that SBCI's expected
97 productivity growth as determined by the Commission in SBCI's Alternative
98 Regulation Proceeding¹¹ (4.3%), combined with generally expected inflation rates
99 (forecast by the Congressional Budget Office to be 2%),¹² imply that SBCI's
100 forward looking costs will decline by between 2.0% and 2.5% a year and
101 therefore will be lower than its historical costs for the foreseeable future. Dr.
102 Aron now appears to concede that forward looking costs for SBCI will be less
103 than historical costs, but then contends that it would take 20 years for forward
104 looking costs to drop to current UNE rate levels¹³.

⁹ Id.

¹⁰ SBCI Ex. 2.0 at 14

¹¹ See, generally, *Final Commission Order, Illinois Bell Telephone Company: Application for review of alternative regulation plan / Illinois Bell Telephone Company: Petition to Rebalance Illinois Bell Telephone Company's Carrier Access and Network Access Line Rates / Citizens Utility Board and the People of the State of Illinois -vs- Illinois Bell Telephone Company: Verified Complaint for a Reduction in Illinois Bell Telephone Company's Rates and Other Relief*, ICC Docket No. 98-0252/0335; 00-0764 (consol.) (December 30, 2002) (hereafter "Alt Reg Review Order"); *Final Commission Order, Illinois Bell Telephone Company: Petition to Regulate Rates and Charges of Noncompetitive Services Under an Alternative Form of Regulation*, ICC Docket Nos. 92-0448/93-0239 (Consol.), October 11, 1994 (hereafter "Alt Reg Order").

¹² Staff Ex. 2.0 at 10, footnote 10.

¹³ SBCI Ex. 2.1 at 78.

106 Dr. Aron's calculations suggest that she is under a misapprehension regarding
107 how productivity growth is achieved in the telecommunications industry. The
108 telecommunications industry is capital intensive and consequently has relatively
109 low operating costs (e.g., maintenance costs, fuel costs etc). Under these
110 circumstances productivity growth is achieved by important technological
111 breakthroughs (e.g. the advent of direct distance dialing, computer switching,
112 fiber optic cable) rather than by incremental reductions in operating cost as
113 implied by Dr. Aron's calculations. As a result, it is quite possible for an existing
114 carrier to have forward looking loop costs of \$12.50 while its average historical
115 loop costs are \$31.68 – figures Dr. Aron claims for SBCI¹⁴.

116
117 Consider for example the case of hypothetical telephone company Z. Assume
118 telephone company Z's current costs of installing loops is \$40 and it has put in 50
119 such loops. Now suppose there is a technological breakthrough ("breakthrough
120 one") and as a result of sharply lower cable manufacturing costs and
121 improvements in digging equipment the costs of installing loops falls to \$24.56.
122 Even though the cost of loops has fallen to \$24.56 per month telephone company
123 Z will not replace existing loops with new loops – this is because the costs of
124 installing the existing 50 loops is sunk and it makes no sense to tear out a
125 perfectly good loop and replace it with a new loop. Consequently, telephone
126 company Z services new demand, but not existing demand, with "breakthrough
127 one" technology and puts in an additional 45 loops at cost \$24.56 per loop.

¹⁴ SBCI Ex. 2.1 at 78

128 Finally, assume there is another technological breakthrough in cable
129 manufacturing costs and digging equipment ("breakthrough two") and the costs
130 of installing loops falls to \$12.50. Telephone company Z deploys 5 loops under
131 "breakthrough two" technology. Again it does not replace existing loops under
132 "breakthrough two" because it makes no sense to replace perfectly functioning
133 old loops¹⁵. Under these circumstances telephone company Z has average
134 historical costs of \$31.62 per loop (the weighted average of \$40, \$24.56, \$12.50).
135 Over time, as the existing loops in the ground physically deteriorate, telephone
136 company Z will eventually replace all existing loops (over 20 years for example)
137 with "breakthrough two" technology and telephone company Z's average loop
138 costs will therefore fall to \$12.50.

139
140 Under this example, efficient forward looking costs per loop for telephone
141 company Z are \$12.50, and this forward looking cost is perfectly consistent with
142 historical per unit loop costs of \$31.62. Even though it may take 20 years for
143 telephone company Z's historical costs to fall to \$12.50, it would be proper for the
144 regulator of telephone company Z to set a wholesale price of \$12.50 for loops.
145 This is because a new firm entering the telephone market in Z's territory could
146 deploy loops for \$12.50 and still be profitable.

147
148 In the real world, of course, technological improvements do not always result in
149 the dramatic reduction of costs that I have portrayed in this example. But the

¹⁵ I mean in this case perfectly functioning loops with very small operating costs.

important point to grasp – and one Dr. Aron ignores - is that average historical loop costs reflect costs of outdated inefficient technology, and therefore should not be used as the basis for setting forward looking rates.

Q. Dr. Aron disputes your claim that higher UNE rates will result in re-monopolization of much of the local service market and argues that your contention is devoid of factual support or analysis¹⁶. How do you respond to Dr. Aron?

A. It is fact that higher UNE-L rates will raise costs for CLECs. Consequently, if UNE-L rates increase CLECs will not be able to profitably serve some customers that they currently serve. Customers who cannot profitably be served by CLECs at higher UNE-L rates will therefore have no choice but to turn to SBC for service and will therefore effectively have no choice of supplier.

This concept can best be illustrated by the following example. Current UNE-L rates for Access area C are \$11.40¹⁷. Assume CLECs have on average \$15 in non UNE-L costs. This means CLECs can profitably service any customer in Access area C with local telephone expenditure of \$26.40. Now assume UNE-L rates in Access area C rise to \$20.56 as SBCI proposes they should¹⁸. Under this scenario, CLECs can now only profitably serve customers who spend \$35.56

¹⁶ SBCI Ex. 2.1 at 81.

¹⁷ See SBCI Ex. 1.0 generally.

¹⁸ SBCI Ex. 1.1 generally.

171 (\$20.56+\$15) or more for local telephone service. As a result, CLECs will no
172 longer serve customers who spend between \$26.40 and \$35.56 on local
173 telephone services. These customers will have no choice but to turn to SBCI for
174 service. In other words, the market will be re-monopolized for many customers
175 if SBCI's proposed loop rates are adopted.

176
177 **Q. Dr. Aron contends that capacity utilization rates may not be measured on**
178 **any sort of comparable basis to fill factors¹⁹. How do you respond to Dr.**
179 **Aron?**

180
181 **A.** The capacity utilization rates I quoted in my direct testimony are compiled by the
182 Federal Reserve Board of the United States and are computed according to the
183 rigorous standards demanded by this agency. It is possible that the methodology
184 used to compute capacity utilization rates may not be identical to the
185 methodology used to compute fill factors. Nevertheless, capacity utilization rates
186 and fill factors are very similar indices since both attempt to measure the same
187 concept: the degree to which plant capacity is utilized. Federal Reserve Board
188 figures show that, on average, about 82% of manufacturing plant is utilized. For
189 some industries it is as low as 70% of plant capacity and for other industries as
190 high as 90% of plant capacity. The question, then, is if other industries can
191 operate at 82% capacity why is it that local telephone service cannot operate at

¹⁹ SBCI Ex. 2.1 at 82.

82% fills? Dr. Aron failed to provide a satisfactory answer to this question in her direct testimony.

Q. Dr. Aron contends that that outside plant facilities are geographically specific and non-fungible²⁰. As a result, efficient spare capacity needs in outside plant are not comparable to spare capacity needs in an automobile factory or electricity plant. How do you respond to Dr. Aron?

A. Dr. Aron contends that outside plant facilities are geographically specific and that geographic variability of demand increases the needs of spare capacity in loop plant. For example, if demand for lines increases by 5% in Evanston, then spare capacity in Elgin cannot be used to satisfy line demand in Evanston.

However, geographically specific plant and geographic variability of demand is not unique to telecommunications. In the food industry for example, an increase in demand for fresh milk in California cannot be met by producers in New York. Similarly, an increase in demand for Toyota Camrys cannot be met by spare capacity in General Motor's Buick plants. Nevertheless, I do agree with Dr. Aron that outside plant for telecommunications tends to be more geographically specific and less fungible than plant in most industries.

²⁰ SBCI Ex. 2.1 at 82

On the other hand, as I demonstrated in my direct testimony, demand for local loops is generally much less variable than demand for other goods and services. Demand for loops does not drop by 20% one year and rise 20% a couple of years later as it does for automobiles (US automobile production fell about 25% in 1974 and rose about 20% in 1976). Consequently, although outside plant is more geographically specific than plant in most industries - which may increase spare capacity needs for outside plant – it is also true that demand for loops is less variable than demand for products and services in other industries - which would decrease spare capacity needs for outside plant. On balance, the net impact of these opposing factors – more geographic specificity but less variable demand - might balance each other out. Dr. Aron has provided no evidence to suggest that they will not. As a result, I still maintain that SBCI has too much spare loop capacity.

Q. Dr. Aron contends that although the spare capacity is driven by the same qualitative factors, it does not imply that the quantitative amount of spare capacity should be the same in all industries²¹. How do you respond to Dr. Aron?

A. I agree with Dr. Aron with respect to this specific statement. Dr. Aron then goes on to state that “there is no reason to believe, and Dr. Staranczak provides none, that the relative costs of augmenting capacity in an auto factory or aerospace

²¹ SBCI Ex. 2.1 at 83-84.

235 plant bear any relation to the relative costs of augmenting capacity in
236 telecommunications outside plant". Again I agree that the relative costs of
237 augmenting capacity in an auto factory or aerospace plant or any other
238 manufacturing plant may not bear much relation to the relative costs of
239 augmenting capacity in outside plant. Indeed, the costs of augmenting capacity
240 in an auto factory or aerospace plant or any other manufacturing facility could be
241 much higher than the costs of augmenting capacity in outside plant. Dr. Aron
242 has not provided any evidence that the relative cost of augmenting outside plant
243 are any higher than the costs of augmenting an auto plant or an aerospace plant
244 or other types of manufacturing plant although this is what she tries to imply.
245 Since Dr. Aron has provided no evidence that there is a difference in augmenting
246 costs between manufacturing plants in general and outside plant, she has not
247 explained why there is so much more spare capacity in outside plant relative to
248 other types of manufacturing plant.

249
250 I recognize augmenting outside plant would, in some cases, require SBCI to dig
251 up streets and sidewalks and this is an expense SBCI would want to avoid.
252 Nevertheless, other manufacturing industries face similar types of issues. To
253 build a plant of any size in the electric or auto industries for example, would
254 require companies to overcome all sorts of time consuming environmental and
255 regulatory hurdles. In order to avoid this type of delay and expense, auto and
256 electric companies would tend to put in more plant than is necessary to meet
257 current needs. So just as SBCI wants to avoid digging up streets a second time,

manufacturing companies want to avoid going through costly environmental and regulatory hurdles more than one time. If Dr. Aron has any evidence that the costs of digging up streets a second time is greater than the costs of dealing with environmental and regulatory compliance a second time, she should offer such evidence in testimony.

Q. Dr. Aron contends that telephone companies are subject to regulatory requirements that other industries are not²². How do you respond to Dr. Aron?

A. Dr. Aron maintains that SBCI cannot delay provisioning telephone service to a retail customer because of stringent regulatory service requirements while auto companies, in contrast, can and do make customers wait for a new auto²³. However, telephone companies are not unique in this regard. Electric companies certainly cannot make customers wait for power. They must build capacity to meet peak heating demands in winter and peak cooling demands in summer, in the form of so-called “peaker” generation plants that are only utilized a very few days per year. Yet capacity utilization rates for the electricity industry are higher than for manufacturing in general and much higher than they are for outside plant.

²² SBCI Ex. 2.1 at 84.

²³ Dr. Aron fails to note that persons seeking to purchase automobiles have numerous choices with respect to makes, models and individual dealerships. Thus, if a dealer or manufacturer cannot supply a vehicle to a customer, that customer may choose a dealer or manufacturer who can, thereby costing the unresponsive dealer/manufacturer a sale. SBCI is of course not subject to such competition in the supply

278

279 **Q Dr. Aron contends that fills for SBCI have not risen under price caps and**
280 **therefore concludes that SBCI did not undertake inefficient investment**
281 **under rate of return regulation²⁴. Do you agree?**

282

283 A. I do not. Rate of return regulation provides strong incentives for firms to put in
284 more spare plant than they are likely to ever require. Very simply, under rate of
285 return regulation a telephone company's rates are determined by the size of its
286 rate base (i.e. its capital investment). If the rate base expanded because of
287 increased investment, the telephone company was granted rates that would
288 allow it to earn its cost of capital on this investment. Consequently, if SBCI
289 installed a lot of spare capacity it did not need, it would still earn a rate of return
290 on this spare capacity, so long as this spare capacity received regulatory
291 approval²⁵. Under rate of return regulation, therefore, there is not as strong an
292 incentive to be as frugal with spare capacity as there is in unregulated industries
293 – indeed there is often an absolute disincentive to do so. In unregulated
294 industries, spare capacity is often not profitable, while in rate of return regulated
295 industries it often is.

296

297 Since rate of return regulation did not provide firms with the proper investment
298 incentives for precisely the reasons I describe above, economists urged state

of loops and can therefore fail to supply customers for extended periods without facing the loss of a "sale"- which in fact occurred during the spring and summer of 2000.

²⁴ Id at 85.

299 legislatures and public utility commissions to embrace price cap regulation –
300 which many states including Illinois have adopted²⁶. Under price cap regulation
301 firms' prices are indexed to inflation minus a productivity factor. Typically the
302 productivity factor reflects historical productivity growth **plus** a consumer
303 dividend. The consumer dividend represents the increase in productivity that
304 regulators **expect** firms to achieve under price cap regulation. In Illinois the
305 consumer dividend is 1%. That is the Commission in Illinois expected SBCI to be
306 1% more productive per year under price cap regulation than it was under rate of
307 return regulation. If the Commission believed SBCI was as productive as it could
308 be, under rate of return regulation, the Commission would not have set the
309 consumer dividend at 1%²⁷.

310
311 There are two possible reasons why fills may not have risen under price cap
312 regulation. First, demand may not have increased enough (or at all) to use up all
313 the spare capacity SBCI apparently possesses. Put another way, SBCI may not
314 yet have had an opportunity to implement more efficient fills because the demand
315 has not been there. But if SBCI has not had the opportunity to implement more
316 efficient fills this in no way implies that current fills are efficient for a forward-
317 looking firm.

²⁵ Regulators may approve spare capacity that is not needed because among other reasons they are at an informational disadvantage relative to the Company.

²⁶ See 220 ILCS 5/9-244; 13-506.1 (Illinois PUA provisions authorizing alternative regulation); *see also* Alt Reg Review Order, Alt Reg Order.

²⁷ The General Assembly instructed the Commission to identify benefits to ratepayers but the size of the benefit was left to the Commission's discretion.

319 Alternatively the fact that fills have not risen under price cap regulation may
320 suggest that SBCI has not rethought its monopoly practices with respect to spare
321 plant. Dr. Aron contends that SBCI under price caps has more incentive to be
322 frugal with spare plant. But the business world is replete with examples of firms
323 who were slow to change their old, inefficient ways. K-mart, Montgomery Ward
324 and Ames stores were slow to adopt the innovative inventory control methods
325 pioneered by Wal-Mart, even though they too had a duty to their shareholders to
326 do so, and went bankrupt as a result. The Big Three auto makers, GM, Ford and
327 Chrysler were slow to adopt the quality standards employed by the Japanese
328 and have lost 35% of the car market as a result (I would not be surprised if
329 automaker executives just before the arrival of the Japanese claimed that their
330 cars were of the highest quality just as SBCI now claims that its current fills are
331 efficient). Numerous airlines have gone bankrupt because they do not know how
332 to manage spare capacity properly. The Commission should not require CLECs,
333 and ultimately the customers they serve, to pay higher UNE-L prices just
334 because SBCI may have been slow to change the way it provisions spare
335 capacity.

336
337 Perhaps the most glaring indictment of SBCI's outdated provisioning policy can
338 be found in its own testimony. SBCI witness Dr. Vanston contends that by the
339 year 2010 SBCI will lose 50% of its wireline phones to wireless and another 9%
340 to cable telephony.²⁸ Yet as far as I am aware SBCI still provisions 2 new loop

²⁸ SBCI Ex. 13.1 at 28-29.

341 facilities for every new home. It makes no sense to put two lines in every new
342 home, if - as Dr. Vanston alleges - in six years time 60% of those homes will not
343 subscribe to wireline services at all. Either SBCI does not truly believe Dr.
344 Vanston's competitive forecast, or it does, but has failed completely to change its
345 provisioning policy to be consistent with this forecast.

346
347 **IV. Response to Dr. Vanston**

348
349 **Q Dr. Vanston contends that opposing witnesses fail to appreciate the**
350 **importance of competition and its role in determining asset lives²⁹. How**
351 **you respond to Dr. Vanston?**

352
353 **A.** Dr. Vanston alleges that dramatic increases³⁰ in facilities based competition will
354 strand switch and circuit line cards, as well as cable pairs³¹ translating into a
355 major decrease in the economic value of ILEC assets. However, if the dramatic
356 increase in facilities based competition that Dr. Vanston forecasts does not
357 materialize the decline in asset values that Dr. Vanston predicts will not occur
358 and his case for accelerated depreciation will fail completely. Consequently, it is
359 necessary to examine once again Dr. Vanston's facilities based competitive
360 forecasts.

361

²⁹ SBCI Ex. 13.1 at 9.

³⁰ Id at 14.

³¹ Id at 13.

Dr. Vanston contends that facilities based competition for residential loops will come in the form of cable telephony, wireless and broadband³². For cable telephony, Dr. Vanston forecasts 9 million subscribers by the year 2005. He maintains that this forecast is easily achievable as cable companies roll out service over the next few years³³. Table 1 below is taken from the FCC Status of Local Competition Report and shows the evolution of cable telephony over the last few years.

Table 1

Competitive Local Exchange Carrier Lines		
(end user switched lines in 000s)		
Date	Cable Lines	Per Cent Change
Dec 2000	1125	-
June 2001	1876	66.8
Dec 2001	2246	19.7
June 2002	2597	15.6
Dec 2002	2988	15.1
June 2003	3028	1.3
Source: FCC, "Status of Local Competition", Table 5, released Dec 2003.		

FCC figures indicate that there are approximately 3 million cable telephony subscribers currently and that the rate of growth in cable telephony has **slowed** during **every** six-month period from June 2001 to the present. In the latest six-

³² Id at 28.

month period there was very little growth in cable telephony at all. Dr. Vanston's forecast of 9 million coaxial cable lines by the end of 2005 would require almost a 25% compound rate of growth in lines during every six month period from June 2003 until December 2005. Based upon current trends this is extremely improbable – in fact it would take until the year 2045 to reach 9 million lines based on the most recent six month growth rate. In other words, Dr. Vanston has vastly overstated the competitive threat from cable telephony.

One reason that cable telephony has not made greater inroads is because of possible compatibility and reliability problems that Dr. Vanston fails to discuss. Quite a number of existing telephone sets are not compatible with cable telephony. Consequently, a customer who signs up with a cable company may have to purchase a new telephone set as well. In addition, cable telephony relies on phone batteries if electricity goes out. These batteries are only good for about eight hours, whereas regular telephones can operate virtually indefinitely when the power goes out. Finally, some dial around long-distance numbers (10-10-XXX) may not work with the cable telephony³⁴.

In terms of wireless facilities based competition, Dr. Vanston steadfastly maintains that 20% of households will convert from wireline voice services to wireless (or VOIP on broadband) by year end 2006, and 50% will have done so

³³ Id at 28.

³⁴ These issues are discussed on the Comcast website <http://www.comcast.com>

394 by 2010³⁵. Dr. Vanston, however, makes these bold assertions in the face of a
395 complete dearth of evidence to support this forecast. In his direct testimony Dr.
396 Vanston³⁶ contended that some 2% of households rely entirely on wireless. He
397 now maintains that the figure is between 3% and 5% although he himself
398 concedes he has no data to support his assertion³⁷.

399
400 The facts are these: FCC figures indicate there were 102.2 million households
401 with telephone service in 2001³⁸. According to Dr. Vanston's direct testimony
402 about 2 million of these households rely entirely on wireless (2% of 102.2
403 million). Thus while there are 128 million wireless subscribers nationwide
404 currently³⁹ and wireless has been available to customers for many years, only
405 2% of households choose to solely rely on wireless today. For Dr. Vanston's
406 prediction that 20% of households will rely entirely on wireless by the year 2006
407 to come true approximately 18 million households will have to switch from
408 wireline to wireless over the next three years (about 6 million a year, or almost
409 three times as many per year as have switched to date). A further 30 million
410 households will have to switch from wireline to wireless over the next 4 years
411 (2006 to 2010) for his forecast that 50% of households will rely entirely on
412 wireless by the year 2010 to come true. Simply put, Dr. Vanston's very
413 aggressive wireline to wireless forecasts are without basis in fact.

35 SBCI Ex. 13.1 at 29.

36 SBCI Ex. 13 at 31

37 SBCI Ex. 13.1 at 30 (see footnote 27).

38 FCC Study on Telephone Trends, Table 7.4, released August 2003.

415 Dr. Vanston contends that the reason the substitution from wireline to wireless
416 that he is predicting did not occur earlier is because cellular was until recently
417 expensive, bulky, unreliable and lacking the call-handling capacity to compete
418 with wireline⁴⁰. But cellular continues to be more expensive than wireline and
419 lacks the quality and reliability of wireline. For these reasons, wireless will
420 continue to complement rather than displace wireline telephone service for the
421 foreseeable future⁴¹.

422
423 Dr. Vanston may argue that recently enacted rules governing wireline to wireless
424 portability will increase the attractiveness of wireless phones. However, even
425 after the adoption of new FCC rules, there is no evidence that customers are
426 substituting wireless to wireline at anywhere near the rate that Dr. Vanston
427 forecasts.

428
429 Finally, Dr. Vanston maintains that CLECs serve 14.5% of access lines and
430 ILECs are losing millions of access lines annually⁴². However an examination of
431 Table 2 of Dr. Vanston's testimony⁴³ reveals that about 75% of CLEC lines are
432 resale and UNE-L or UNE-P lines which typically do not strand ILEC loop
433 investment since these lines are provisioned entirely through use of the ILEC's

³⁹ Staff Ex. 2.0 at 30.

⁴⁰ SBCI Ex. 13.1 at 30.

⁴¹ Recent consumer expenditure data (Table 3.2 of the FCC's "Trends in Telephone Service" report) suggest that telephone subscribers are using wireless phones to place more of their long distance calls but there is no evidence that subscribers are substituting wireless access for wireline access since consumer expenditure on wireline local telephone service continues to rise.

⁴² SBCI Ex. 13.1 at 12.

⁴³ SBCI Ex. 13.1 at 13.

facilities. There are only about 6.3 million facilities-based CLEC lines. Furthermore the number of facilities based CLEC lines have not increased markedly since December of 2001. In fact, the number of facilities based lines that are not cable telephony lines has actually **decreased** since December 2000 as is evident in Table 2 below.

Table 2

Narrow Band CLEC Facilities Based Lines by Carrier Type (millions)

Month	Year	CLEC Facilities Based	Coaxial Cable	Other Facilities Based
Dec	2000	5.2	1.1	4.1
June	2001	5.8	1.9	3.9
Dec	2001	6.1	2.2	3.9
June	2002	6.2	2.6	3.6
Dec	2002	6.4	3.0	3.4
June	2003	6.3	3.0	3.3
Source: FCC "Status of Local Competition" Tables 3 and 5, released Dec 2003.				

To summarize, there is no credible statistical evidence to support Dr. Vanston's assertions that facilities based competition will increase substantially. Cable

444 telephony accounts for a small portion of the total market and growth for this type
445 of facilities based entry appears to have stalled. Furthermore there is now **less**
446 facilities-based competition from non-coaxial sources than there was three years
447 ago. Finally, there is no plausible evidence that substantial numbers of wireline
448 subscribers will rely solely on wireless anytime in the foreseeable future.

449
450 **Q Dr. Vanston contends that for business loops there is substantial facilities**
451 **based competition and plant in place⁴⁴. Do you agree?**

452
453 A. Again, as with much of his testimony, Dr. Vanston fails to supply evidence that
454 there is indeed substantial facilities based competition. He does no more than
455 make a bare assertion that it is true. However, it may be instructive for the
456 Commission to examine evidence provided by SBCI in Docket No. 03-0596
457 which the Commission is pursuing concurrently with this proceeding. In Docket
458 No. 03-0596 SBCI provided data that indicated within the Chicago Loop area
459 there were approximately 140 locations (basically office buildings) that were (at
460 the time of the study was conducted) served by two or more facilities-based
461 competitors. But there were approximately 650 locations with telephone
462 spending of over \$50,000 per year that were served by no facilities based
463 competitor, or at most one facilities based competitor⁴⁵. These figures
464 demonstrate that even for large office buildings there is very limited facilities
465 based competition. For smaller office buildings (office buildings with under

⁴⁴ SBCI Ex. 13.1 at 28.

\$50,000 in annual telecommunications spending), SBCI itself concedes that it is uneconomic for competitors to put in their own facilities⁴⁶.

Q. Dr. Vanston contends that the number of ILEC narrowband access lines (including UNE and resale lines) has been declining since 2000 – a decline he attributes to broad substitution by wireless and broadband⁴⁷. How do you respond to Dr. Vanston?

A. The number of narrowband access lines has indeed declined from 187.3 million in 2000 to 176.1 million in June 2003. During the same period the number of ILEC ADSL and other high speed lines increased to over 8 million from less than 2 million⁴⁸. Much of the decline in narrowband access lines therefore is accounted for by conversion to broadband. Typical conversion of a narrowband line to broadband line involves, at its simplest level, conditioning (removing accreted devices such as load coils and range extenders) of the copper loop, and attaching splitters and a multiplexer to the loop. This enables the subscriber to use the low frequency portion of the copper loop for transmission of analog voice traffic, and the high frequency portion for high-speed transmission of digital traffic. Thus, conversion to broadband therefore does not strand existing narrowband loop plant – rather it makes a new use of the functionalities inherent in the copper loop, giving extended life to that plant.

⁴⁵ SBCI Ex. 3.1, Attachment RLS-6.

⁴⁶ SBCI Ex. 3.0 at 36-37.

⁴⁷ SBCI Ex. 13.1 at 12.

Another reason that the number of narrowband lines has decreased is because employment in the United States has declined since the end of 2000. There were about 2.5 million fewer jobs in June 2003 than there were in December 2000⁴⁹. Demand for business lines is in large part driven by the number of employees a business has. If there are 2.5 million fewer employees then there is likely to be millions of fewer access lines as well. Although it is highly unlikely a household will drop primary telephone service if one member or even two members of a household lose a job, a household may discontinue service on second and third lines if a member of the household loses his/her job. Since employment is cyclical, it is likely that this decrease is also cyclical and will rebound over the longer term.

Finally, statistics regarding the total number of resold and UNE lines are obtained from reporting CLECs. Since there are only 125 reporting CLECs for all of the United States, it is likely that some CLECs have not reported. Consequently, the number of resold and UNE lines, and therefore the number of total access lines, is undoubtedly understated.

To summarize, the decline in narrowband lines that Dr. Vanston reports is in large part accounted for by conversion to broadband – a conversion that uses rather than strands, copper loop plant. The decrease in access lines is also due

⁴⁸ FCC “Data on High-Speed Services for Internet Access” December 23, 2003 report, Tables 1 and 5.

to a drop in employment and a likely underreporting by CLECs. There is no evidence that this decline is due to substitution by wireless.

Q Dr. Vanston contends that another reason that depreciation lives should be shortened is technological obsolescence.⁵⁰ How you respond to Dr. Vanston?

A. Dr. Vanston concedes that SBC's current Illinois' network may be up to the task of providing today's advanced services, but maintains that it will need major upgrades to provide next generation broadband services⁵¹. In particular, Dr. Vanston asserts that SBC will need to place fiber much deeper into the network to offer high-speed broadband although he again admits that some architectures may reuse metallic drop cable⁵².

However, Dr. Vanston has made a less than convincing case for technological obsolescence. He asserts that broadband data transmission rates will need to be increased but admits that broadband is too young a technology from which Technology Futures, Inc., ("TFI") can extrapolate any useful conclusions using current trends⁵³ (since there is not enough data to formulate a current trend). Instead he uses trends established for analog modems, but again concedes that

⁴⁹ See <http://data.bls.gov/servlet/SurveyOutputServlet>. Figures are seasonally adjusted non-farm employment.

⁵⁰ SBCI Ex. 13.1 at 13.

⁵¹ SBCI Ex. 13.1 at 19.

⁵² SBCI Ex. 13.1 at 21.

⁵³ SBCI Ex. 13.1 at 24

529 there is no guarantee that broadband will achieve the same rate of improvement
530 (in speeds) as analog modems⁵⁴. Moreover, Dr. Vanston fails to articulate a
531 reason why trends for analog modem speeds should be used as a proxy for
532 possible trends in broadband data transmission rates. It may be convenient for
533 Dr. Vanston to use modems speeds as a proxy since it apparently provides the
534 result he is looking for, but he provides no justification whatsoever for doing so.

535
536 More fundamentally, Dr. Vanston has not established that customers will need or
537 demand ever-increasing bandwidths and transmission rates. He asserts that by
538 2020 customers will want access to massive file downloads for interactive games
539 and high quality video on demand but provides no studies or data to support his
540 views⁵⁵. Dr. Vanston simply assumes that the network will undergo a
541 fundamental transition for low-speed broadband to very high-speed broadband⁵⁶
542 and expects the Commission to accept this forecast but provides no evidence or
543 analysis to support his claim.

544
545 **Q Dr. Vanston still maintains that the number of broadband customers will**
546 **grow sharply and this will require network build out requirements to a high**
547 **number of homes (90%)⁵⁷. How do you respond to Dr. Vanston?**

⁵⁴ SBCI Ex. 13.1 at 25.

⁵⁵ SBCI Ex. 13.1 at 25.

⁵⁶ SBCI Ex. 13.1 at 22

⁵⁷ SBCI Ex. 13.1 at 23.

549 A. Dr. Vanston assumes that penetration rates for broadband will reach 90% by the
550 year 2020 because this ultimate penetration rate was achieved by consumer
551 technologies such as radio, television and VCR/DVD⁵⁸. Dr. Vanston does not
552 indicate however, how long it took radio, television and VCR to achieve 90%
553 penetration rates. More fundamentally, it is inappropriate to use penetration
554 rates achieved by consumer durables such as radio, television and VCRs to
555 forecast penetration rates for a service such as broadband. This is because the
556 purchase of a durable is a one-time event that occurs every five or ten years
557 whereas a service such as broadband in effect must be purchased monthly. In
558 addition, broadband is much more expensive than TV sets, radios or VCRs. A
559 VCR that will last ten years might require an outlay of \$200. In contrast
560 broadband that retails for a rock bottom price of \$25 per month, would cost a
561 household \$3000 over the same ten-year period (25X12X10). Broadband is so
562 much more expensive than consumer durables, that penetration rates for
563 broadband, even for high-income households, are likely to be much lower than
564 penetration rates for consumer durables.

565
566 Dr. Vanston indicates that cable television has a penetration rate about 70%
567 today – even though cable television has been around for more than 40 years.
568 Cable television is a service, not a durable good and consequently it would be
569 more appropriate to use cable penetration rates, rather than consumer durable
570 penetration rates, as a guide for forecasting broadband penetration rates. But

⁵⁸ SBCI Ex. 13.1 at 23.

571 cable television likely has a much wider appeal across all income groups than
572 broadband. Moreover, cable television does not require a great deal of technical
573 sophistication to use. For these reasons, and because broadband will only have
574 been around about 20 years by 2020, even a forecast of 70% penetration rates
575 for broadband is much too high, and a forecast of 35% penetration rates for this
576 service would in my opinion be more reasonable.

577
578 But assume that broadband achieves 100% penetration. If current trends are
579 maintained, two-thirds of those broadband subscribers will be served by cable
580 operators. Consequently, if loop capabilities are upgraded to fiber as advocated
581 by Dr. Vanston, only one-third of subscribers will actually use that fiber for
582 broadband (the rest will obtain broadband from cable companies). The other two
583 thirds therefore will be paying higher telephone rates to upgrade facilities for
584 broadband that they will not purchase from the telephone company. And if
585 broadband penetration rates reach only 35%, and two thirds of those broadband
586 subscribers go with cable companies, then only 12% (one third of 35%) of
587 present telephone subscribers will actually get broadband through the telephone
588 company. In other words, 88 per cent of present telephone subscribers will end
589 up paying higher telephone rates in order for the other 12% to subscribe to
590 telephone company based broadband services.

591
592 Basically, Dr. Vanston is asking the Commission to grant SBC shorter lives for
593 plant and equipment, which will raise UNE-L rates for CLECs and ultimately

telephone rates for the million telephone subscribers they serve because this will enable SBCI to more easily compete in the broadband market with cable operators. It is inappropriate public policy to have ratepayers who don't subscribe to broadband, or who obtain broadband from the cable companies, to pay higher telephone rates just to make the telephone companies better able to compete in the broadband market.

V. UNE Rates

Q. Please list changes that SBCI has made to its cost studies since the original 2002 filing.

A. SBCI has implemented several changes both to the basic cost model (LoopCAT) used to generate forward looking monthly recurring costs for loops and to the inputs used by the model since the December 2002 filing in response to Staff and intervener analysis. Among the various changes SBCI has made, Staff notes the following:

a) Sales Tax Rate: Sales tax rate is reduced to ****XXX**%** from ****XXX**%**

b) Feeder Distribution Interface (FDI) Fill: FD fill is now the feeder cable fill rather than a weighted average of the distribution cable fill and feeder cable fill (1/3 feeder fill and 2/3 distribution fill).

617
618 c) DLC-RT EFI factors: In the previous version of LoopCAT SBCI applied two
619 different Engineering, Furnishing & Installation (“EFI”) to its DLC Circuit
620 Equipment material investment costs to calculate its DLC circuit investment
621 costs: DLC hardwire EFI ****XXX**** and DLC plug in EFI ****XXX****. The DLC
622 hardwire EFI factor of ****XXX**** was applied to the hardwire components of DLC
623 Common Investment at RT and COT. The DLC plug in EFI factor of ****XXX**** was
624 applied to the plug in units of the DLC Common investment as well as to the
625 Channel Unit investment at RT and COT. Under the current LoopCAT model
626 these installation factors have been changed to ****XXX**** and ****XXX****.

627
628 d) SBCI removed distribution termination investment costs from its UNE-L
629 calculations. SBCI discovered that investment dollars associated with premises
630 termination equipment were being aggregated into cable accounts under the
631 previous model and were therefore counted twice.

632
633 e) SBCI incorporated multiple dwelling units into the development of its premises
634 termination costs. In the December 2002 version of LoopCAT all residential
635 customers were assumed to be served by a Network Interface Device (NID) that
636 had no more than six copper pairs. In reality, apartment buildings and
637 condominiums are served by less expensive (on a per loop basis) building
638 terminals. To accommodate apartment buildings SBCI included 25 and 50 wire
639 terminals in its residential premises termination equipment calculations.

640

641 f) SBCI included a 448 pair Litespan system in its forward looking DLC modeling.

642 In the December 2002 version of LoopCAT there were only two types of Litespan

643 systems, one with 672 line pair capacity and one with 2016 line capacity. The

644 introduction of a smaller Litespan system tends to reduce weighted DLC

645 investment costs, since some locations that SBC previously assumed were

646 served by (more expensive) 672 line systems can in fact be served by 448 line

647 systems.

648

649 g) SBCI included controlled environmental vaults ("CEVs") in its forward-looking

650 modeling of DLC systems

651

652 h) SBC recalculated cable installation investment factors. In the previous version

653 of LoopCAT SBCI discovered that that investment dollars associated with

654 premises termination equipment were being aggregated with buried cable. To

655 ensure premises termination was not counted twice SBCI removed premises

656 termination equipment investment dollars from cable accounts and then re-

657 calculated cable installation factors.

658

659 (i) SBCI has changed labor rates used in LoopCAT

660

661 **Q. What inputs has SBCI not changed since its original filing?**

662

A. SBCI has not made changes to the following inputs (1) cost of capital factors (equity, debt and capital structure) (2) economic lives of plant (3) “crossover length” (4) fill factors (5) residential/business percentages (6) labor times for NID premises termination equipment.

Q. Overall how does Staff view SBCI’s proposed changes?

A. SBC’s proposed changes are a step in the right direction and result in more reasonable UNE-L rates than SBCI originally proposed (as are evident in Table 3) but Staff believes further changes are warranted.

Table 3

SBCI Proposed UNE-L rates – 2 wire analog

Area	Current	Dec 2002 Proposed	Revised Proposed
Access Area A	\$2.59	\$11.62	\$9.03
Access Area B	\$7.07	\$23.23	\$17.82
Access Area C	\$11.40	\$26.85	\$20.56
Source: SBCI Ex. 1.1 at 7			

Q. In light of SBCI’s modifications to LoopCAT does Staff propose to change any of its May 2003 inputs to LoopCAT?

A. In some instances SBCI made changes to LoopCAT along the lines that were recommended by Staff witnesses in their May 2003, direct testimonies, and Staff is willing to accept these revised inputs. In other cases SBCI did not make the changes recommended by Staff in May 2003, changes that Staff considers are still warranted. Finally, Staff has reconsidered some of input values used in its May 2003 testimony, and has revised those inputs accordingly. The list of key inputs and the Staff witness responsible for those inputs are listed in Table 4 below.

Table 4

Input	Staff Witness
Sales Tax Rate	Peter Lazare (Ex. 23)
Capital and Expense Factors a) Cost of capital b) Depreciation	Bob Koch (Ex. 24) Mike McNally (Ex. 31) Genio Staranczak (Ex. 22)
Crossover Length	Bob Koch (Ex. 24)
DLC – RT Common Investment	Bob Koch (Ex. 24)
DLC – EFI Factor	Peter Lazare (Ex. 23)
Copper Installation Factor	Peter Lazare (Ex. 23)
Fiber Cable Cost	Peter Lazare (Ex. 23)
Fill Factors a) FDI b) Other	Qin Liu (Ex. 25)
Residential/Business Percentage	Jim Zolnierrek (Ex. 27)
Premises Termination Cost	Peter Lazare (Ex. 23)
Distribution Termination Cost	Peter Lazare (Ex. 23)

690

691 **A. Sales Tax Rate**

692

693 **Q. Please describe Staff's proposed changes to the sales tax rate?**

694

695 A. In direct testimony SBCI used a sales tax rate of ****XX%****. In his direct
696 testimony, Staff witness Mr. Lazare proposed a sales tax factor of 7.14%.
697 Currently SBCI employs a sales tax factor of ****XXX**%**. Staff accepts SBCI's
698 revised sales tax rate for the reasons set forth in Mr. Lazare's rebuttal testimony.

699

700 **B. Capital and Expense Factors**

701

702 **Q. Please describe Staff's proposed changes to its capital and expense cost**
703 **factors.**

704

705 A. Capital cost factors are generated by the CAPCS tool and expense factors from
706 the ACF Tool are used to generate Annual Cost Factors (ACF's) in LoopCAT.
707 The ACF factors are applied to total loop investment (per loop) to generate the
708 annual recurring costs per loop. Staff witness Robert F. Koch sponsors capital
709 and expense cost factors based on (a) Staff witness Michael McNally's cost of
710 capital factors; (b) my own proposal regarding economic lives of plant and
711 equipment; (c) the sales tax rate; and (d) his own modifications in the ACF tool.

712

713 In rebuttal testimony SBCI failed to change its (a) cost of capital or (b) its
714 economic lives along the lines suggested by Staff. SBCI did, however, lower its
715 proposed sales tax rate. Mr. McNally has not changed Staff's cost of capital nor
716 have I changed Staff's proposed economic lives. However, Mr. Lazare has
717 changed his proposed sales tax rate in response to changes implemented by
718 SBCI. Because of the change in the proposed sales tax rate, Staff has modified
719 its capital and expense factors.

720
721 Capital and expense factors flow into LoopCAT: (1) directly and indirectly through
722 (2) labor rates, and through (3) NID termination costs. Capital cost factors
723 impact support asset factors which flow into labor rates. One labor rate flows into
724 LoopCAT directly, and the other labor rates flows into NID premises termination
725 costs which is a direct input into LoopCAT. Labor rates are updated in
726 IL41XX00.xls and IL43XX00.xls and Misc Material Cost 2002 (IL).xls
727 respectively. Updated capital cost factors are in listed in Schedule 1.

728
729 **C. Crossover Length**

730
731 **Q. Please describe changes Staff proposes to its "crossover length"?**

732
733 **A.** In its direct testimony SBCI assumed a crossover length of 12,000 feet and has
734 maintained this assumption in its rebuttal testimony. Mr. Koch proposed a

crossover length of 18,000 feet in his direct testimony, and continues to support
18,000 feet as the crossover length between copper and fiber.

D. DLC-RT Common Investment

Q. Please describe Staff's proposed changes to SBCI's DLC-RT investment.

A. In direct testimony, Mr. Koch contended that DLC-RT investment serves both
basic telecommunications services and advanced telecommunications services.
Consequently, it was inappropriate for SBCI to allocate all of its DLC-RT
investment costs to basic services and Mr. Koch proposed to remove 25% of 672
Cabinet and 2016 Cabinet Investment. In rebuttal testimony SBCI continues to
allocate 100% of 672 Cabinet Investment and 100% of 2016 Cabinet investment
to basic services. In addition SBCI has introduced a third cabinet of 448 line size
and allocates 100% of these investment costs to basic service as well. In
rebuttal, Mr. Koch proposes that 25% of the investment costs for all three types
of cabinets, 672, 2016 and 448 be removed (i.e. a factor of .75 is applied to these
investment costs) to take into account the fact that these cabinets are also used
for advanced services.

E. DLC-RT EFI Factors

Q. Please describe Staff's proposed changes to SBCI's DLC-RT EFI factors.

758

759 A. In direct testimony Mr. Lazare proposed to change SBCI's Engineering,
760 Furnishing and Installation (EFI) factors to 1.5 for (1) all DLC-RT Common
761 Investment and (2) DLC-RT Channel Unit investment. Mr. Lazare also proposed
762 an EFI factor of 1.8 for all DLC-RT Common investment for DLC-RT size 672
763 hardwire and plug-in.

764

765 In rebuttal SBCI has changed its EFI factors to ****XXX**** and ****XXX****. Staff
766 accepts SBCI's revised EFI factors for reasons articulated in Mr. Lazare's
767 rebuttal testimony.

768

769 **F. Copper Installation Factors**

770

771 **Q. Please describe Staff's proposed changes to SBCI's copper installation**
772 **factors.**

773

774 A. Copper Cable Design & Installation factors are applied to copper cable. SBCI
775 modified its Copper Installation factors in its rebuttal testimony. Because of
776 these modifications, Mr. Lazare had to adjust his own copper installation factors,
777 although he again uses a different methodology from that employed by SBCI.
778 These new installation factors are found in attached Schedule 2.

779

780 **G. Fiber Cable Installation Factors and Costs**

781

Q. Please describe Staff's proposed changes to SBCI's fiber cable costs.

A. Fiber installation factors do not flow through LoopCAT directly but are used to generate fiber cable costs (per foot) which are generated in AIT Fiber Cost Summary 2002 (IL).xls. These fiber cable costs flow directly into LoopCAT. Since SBCI changed its fiber installation factors Mr. Lazare also modified his fiber installation factors although his methodology remains as it was in direct testimony. Staff's fiber installation factors and fiber cable costs are listed in Schedule 2.

H. Fill Factors

(i) FDI Fills

Q. Please describe Staff's proposed changes to SBCI's FDI fill factors.

A. In direct testimony, SBCI's fill factor for Feeder Distribution Interface ("FDI") was calculated as the weighted average of the distribution cable fill factor (2/3) and the feeder cable fill factor(1/3). In direct, Staff recommended that the FDI fill factor be set equal to the feeder fill factor. In rebuttal, SBCI has set the FDI fill equal to the feeder fill factor. Staff consequently accepts SBCI's FDI fill factor.

(ii) Other Fills

Q. Please describe Staff's proposed changes to SBCI's fill factors.

A. SBCI provided the following fill factor-related inputs to LoopCAT: (1) building terminal fill factors; (2) distribution cable fill factors; (3) copper cable fill factors; (4) DLC Chassis fill factors; and (5) DLC plug in fill factors.

In direct testimony SBCI set these fill factors based on historical experience and continues to do so in rebuttal. In direct testimony Staff set (a) the building terminal fill factor at 80%; (b) the distribution cable fill and distribution installation fill at 80%; (c) the copper feeder cable fill and copper installation fill at 85%; (d) the DLC plug in fill factor at 90%; and (e) the DLC Chassis fill factor at 90%. Staff's fill factors were constant across all rate groups.

In rebuttal testimony, Staff has reconsidered the fill factors it proposed in direct testimony and these revised fill factors are listed in Schedule 3. Staff witness Dr. Qin Liu provides rationale for Staff's revised fill factors. Staff did not change SBCI's proposed fill factors for residential premises termination multi-units, DS1/DS3 circuit equipment and DS1/DS3 Loop Studies.

I. Residential/Business Percentages

Q. Please describe Staff's proposed changes to SBCI's residential/business percentages.

828

829 A. In direct testimony, SBCI treated all residential lines as if they were served by
830 NID premises termination equipment. This assumption failed to reflect the fact
831 that residential lines at apartment buildings, condominiums and business
832 operations are served by less expensive building terminals. Consequently,
833 SBCI's assumption overstated the investment cost of residential premises
834 termination. In direct, Staff witness Dr. James Zolnierrek proposed to rectify this
835 problem by treating some residential lines as if they were business lines.

836

837 In rebuttal testimony SBCI corrected this problem. SBCI incorporated multiple
838 dwelling units into the development of its premises termination costs. To
839 accommodate apartment buildings SBCI included 25 and 50 wire terminals in its
840 residential premises termination equipment calculations. Staff accepts this SBC
841 adjustment and consequently agrees to the residence/business line ratio SBCI
842 proposes.

843

844 **J. NID Premises Termination**

845

846 **Q. Please describe Staff's proposed changes to SBCI's NID premises**
847 **termination cost.**

848

849 A. In direct testimony Staff proposed modifications to SBCI's NID premises costs
850 because of changes in: (1) labor time; and (2) capital cost factors. Mr. Lazare

proposed lower labor times and because Staff's debt, equity and economic lives are different from SBCI's, Staff's capital cost factors were different from SBCI's.

SBCI has not incorporated the labor times advocated by Staff nor included Staff's capital cost factors in its NID premises cost modeling. Mr. Lazare continues to support his proposed labor times. Staff has slight revisions to its cost of capital factors and as a result Staff now proposes NID termination costs of \$188.06 for buried and \$156.43 for aerial.

K. Distribution Terminal

Q. Please describe Staff's proposed changes to SBCI's distribution terminal costs.

A. SBCI removed distribution termination investment costs from its UNE-L calculations. SBCI discovered that investment dollars associated with premises termination equipment were being aggregated into cable accounts under the previous model and were therefore counted twice. Staff accepts SBCI's removal of distribution costs.

L. Labor Rate

Q. Please describe Staff's proposed changes to SBCI's labor rate.

874

875 A. In rebuttal, SBCI revised its proposed labor rates. However, these labor rates
876 are still dependent upon SBCI's support asset factors, which are in turn
877 dependent upon SBCI's capital cost factors.

878

879 Since Staff proposes different capital costs from SBCI, Staff's support asset
880 factors and therefore labor rates will be different from SBCI. The four asset
881 factors used in the labor rate calculations are: (1) Opr & SA; (2) Other; (3) Plant
882 Related; and (4) SVC Reps. SBCI's support asset factors of (1) ****XXXX****; (2)
883 ****XXXX****; (3) ****XXXX****; and (4) ****XXXX**** are changed to (1) .1416 (2) 0.2921
884 (3) .4259 and (4) .2889 under Staff's proposal.

885

886 As a result Staff's labor rates for 41xx Multi-Title, and 43xx Communications
887 Technician are \$69.99 and \$58.57 instead of SBCI's labor rates of ****\$XXXX****
888 and ****\$XXXX****.

889

890 **M. DSI Circuit Equipment**

891

892 **Q. Please describe Staff's proposed changes to DSI circuit equipment.**

893

894 A. Staff modified DS1 equipment costs to reflect Staff's proposed changes to capital
895 and expense factors. See Schedule 4. Since Staff and SBCI now agree on the

896 sales tax rate, no further input changes were implemented to the DS1 equipment
897 model.

898

899 **N. DS3 Circuit Equipment**

900

901 **Q. Please describe your changes to DS3 circuit equipment.**

902

903 A. Staff modified DS3 equipment costs to reflect Staff's proposed changes to capital
904 and expense factors. See Schedule 5. Since Staff and SBCI now agree on the
905 sales tax rate, no further input changes were implemented to the DS3 circuit
906 equipment model.

907

908 **O. TELRIC Rates**

909

910 **Q. Please explain how you derived TELRIC rates.**

911

912 A. TELRIC rates for the following Loop Types (1) 2w Analog basic; (2) Analog PBX
913 Ground Start; (3) Analog COPTS coin; (4) Analog EKL; (5) 4w Analog; (6) 160
914 Kbps (ISDN-BRI); (7) 2w ADSL & 2w HDSL; and (8) 2s ADSL & 4wHDSL are
915 generated from LoopCAT. Staff's TELRIC rates for these 8 loop types are listed
916 in Schedule 6.

917

For DS1, I derived TELRIC rates by adding the DS1 loop rates from LoopCAT to DS1 equipment costs. For DS3, I derived TELRIC costs by making the following adjustments in the DS3 Recurring Loop Study (1) I replaced SBCI's fiber cable costs with Staff's fiber cable costs; (2) I replaced SBCI's proposed capital and expense factors with Staff's capital and expense factors; and (3) I replaced SBC's DS3 Circuit Equipment costs with Staff's DS3 Circuit Equipment Costs. Staff's TELRIC rates for DS1 and DS3 are listed in Schedule 6.

P. Recurring UNE Loop Rates

Q. Please describe how you derived the recurring UNE rates from the loop TELRIC costs.

A. Staff calculates its UNE rates according to the following formula:

$$\text{UNE rate} = (1 + \text{Uncollectible Factor}) * (1 + \text{Shared \& Common Factor}) * \text{TELRIC}$$

Staff's Uncollectible and Shared & Common Factors are 3.93% and 10.39% respectively. As a result, to calculate the recurring UNE loop rate, I simply multiplied the respective TELRIC first by 1.0393 and then by 1.1039. Staff's proposed recurring UNE loop rates are presented in Schedule 6.

940 Staff witnesses Karen Chang (Ex. 28) and Thomas Q. Smith (Ex. 29) address the
941 appropriateness of SBCI's Shared & Common Factor and Uncollectible Factor.
942

943 **Q. Does this conclude your testimony?**
944

945 **A.** Yes it does.
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